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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,905	02/16/2001	Hartwig Schlesiger	Mo-6021/WW-5562	3662

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EXAMINER	
JONES, DWAYNE C	
ART UNIT	**PAPER NUMBER**
1614	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/785,905	SCHLESIGER ET AL.	
	Examiner	Art Unit	
	Dwayne C Jones	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *the remarks of 05 MAR 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Claims 1-8 are pending.

2. Claims 1-8 are rejected.

Response to Arguments

3. Applicants' arguments filed March 5, 2004 have been fully considered but they are not persuasive. Applicants present the following arguments. First, applicants submit that the difference between the claims and the prior art lies with the specified composition of the superheated gas, as either a superheated gaseous mixture of steam and an inert gas or a superheated gas mixture of steam and air. Second, applicants purport that the gas composition described in the instant claims relate to the gas employed for drying and transportation and not to the solvent used for swelling the "feed composition." Third, applicants argue that the instant claims relate tot eh use of a steam/inert gas or steam/air mixtures having a content of steam of (40-99)% by weight. Fourth, applicants further allege that Bujara et al. make no mention of the possibility of using a content of steam in the transporting gas for the purpose of drying.

4. First, applicants submit that the difference between the claims and the prior art lies with the specified composition of the superheated gas, as either a superheated gaseous mixture of steam and an inert gas or a superheated gas mixture of steam and air. However, WO 98/31710 teaches that, "[t]he soaked or dissolved polysaccharide derivative is *then* converted into the solid state . . . in such a way, that . . . the solvent or

mixed solvent contained in the soaked or dissolved polysaccharide derivative is converted into the vapor phase *by* means of the superheated vapor of the corresponding, or of a different, solvent or mixed solvent,", [Note that the italic emphasis was added] (see translation of WO 98/31710, page 8, lines 11-15). WO 98/31710 also teaches of "suitable solvents" namely water, (see translation of WO 98/31710, page 7, lines 1-6). It is known in the art that when water is heated to 100°C or above it is converted into steam or water vapor, which is comprised of gaseous water molecules that are mixed with air molecules. In addition, the solvent or mixed solvent of WO 98/31710 is converted into the vapor phase by means of a the superheated vapor of the corresponding solvent or mixed solvent that occurs during the drying phase, which is clearly renders the instant invention obvious. For these reasons, WO 98/31710 does teach the skilled artisan of a superheated gas or gaseous mixture that is used to convert the gelled polysaccharide into the solid phase.

5. Second, applicants purport that the gas composition described in the instant claims relate to the gas employed for drying and transportation and not to the solvent used for swelling the "feed composition." The solvent or mixed solvent of WO 98/31710 is converted into the vapor phase by means of a the superheated vapor of the corresponding solvent or mixed solvent that occurs during the drying phase, which is clearly renders the instant invention obvious.

6. Third, applicants argue that the instant claims relate tot eh use of a steam/inert gas or steam/air mixtures having a content of steam of (40-99)% by weight. The prior art reference of WO 98/31710 clearly discloses that the proportion of solvent or mixed

solvent is between 35 to 99 weight %, (see page 7 of the translation of WO 98/31710, lines 28-31).

7. Fourth, applicants further allege that Bujara et al. make no mention of the possibility of using a content of steam in the transporting gas for the purpose of drying. This allegation is responded to with the following explanation. It is first noted that Bujara et al. disclose of a gas stream is generally from 20°C to 250°C, (see from page 10, line 35 to page 11, line 2). Bujara et al. disclose that the water content in the gellation of the cellulose derivative is between 30 to 80 wt.%, (see page 5, lines 31-39). Accordingly, when the water, which is employed for the gellation of the cellulose derivative is heated in the range above 100°C and above, the water is converted into steam and obviously mixed with air during the drying step, which renders obvious the instant invention. Bujara et al. also teach the skilled artisan that the drying step of the cellulose compound can be conducted in a known manner in any mill that does not cause a substantial degradation of the viscosity of the cellulose compound, (see from page 9, line 31 to page 10, line 2). Also, the skilled artisan would realize that in order for the cellulose feed material of Bujara et al. to be conveyed by a gas must obviously be in contact with the cellulose material. In fact, Bujara et al. teach in Example 1 that the air temperature in the mill (which is the drying step) is 200°C, (see page 12, lines 17-20). Obviously, when the water in the cellulose is removed by drying at temperatures including and above 100°C, such as 200°C as in Example 1, the water vapor is superheated and is at the same time mixed with the heated air. For these

reasons and those of record the instant invention is rendered obvious over WO 98/31710 in view of Bujara et al.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over WO 98/31710 in view of Bujara et al. is maintained and repeated for both the above-stated and reasons of record. WO 98/31710 teaches of a process of forming a finely divided polysaccharide derivative of cellulose by gelling a cellulose ether between 35 to 99 wt. % of water. WO 98/31710 also teaches that the dissolved cellulose derivative is then converted into the solid state in various state of the art ways, such as with a dryer-pulveriser or steam mill drying, (see page 8, lines 11-22 of the translation). WO 98/31710 also disclose of suitable solvents, namely water and hydrocarbons and

halogenated hydrocarbons, (see page 7, line s1-6 and page 9, lines 1-8 of the translation). WO 98/31710 also teaches of ranges of the superheated solvent, (see page 7, lines 28-32). WO 98/31710 next teaches that of further separation steps to obtain a polysaccharide derivative that have a high bulk density accompanied by good flow properties, (see page 4, lines 22-31).

11. Bujara et al. also disclose of a process of generating water-soluble cellulose derivatives of particulate size, (see Example 1). Bujara et al. teach of the gellation of a cellulose derivative, wherein the water content is between 30 to 80 wt. %, (see page 5, lines 31-39). Bujara et al. also teach of utilizing an impact mill on the cellulose feed, (see page 10, lines 23-35). One having ordinary skill in the art would have been motivated to utilize a variety of mill processes as generically taught by WO 98/31710 and further explicitly taught by Bujara et al. Accordingly, it would have been obvious to the skilled artisan to substitute the impact mill of Bujara et al. for the process of WO 98/31710, especially when WO 98/31710 teaches the utilization of a variety of mill processes that can be employed for the production of finely particulate cellulose derivatives.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. C. Jones whose telephone number is (571) 272-0578. The examiner can normally be reached on Mondays, Tuesdays, Thursday, and Fridays from 8:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel, may be reached at (571) 272-0584. The official fax No. for correspondence is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications may be obtained from Private PAIR only. For more information about PAIR system, see http://pair-direct.uspto.gov Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/D. C. Jones/
D. WAYNE JONES
PRIMARY EXAMINER

Tech. Ctr. 1614
May 28, 2004